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Beyond Entertainment: Phenomenological Insights into Pakistani Teacher Candidates' Perceptions of Video Games as Tools for Digital Citizenship Education

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ABSTRACT

This study examined how Pakistani teacher candidates, in their teacher training experience, understand video games when used as an educational platform to develop digital citizenship skills. The educational value of video games continues to gain international acknowledgement, but Pakistan lacks research on their incorporation into teaching education programmes, especially as part of digital citizenship programmes. The study was conducted using interpretative phenomenological analysis (IPA) on 20 prospective teachers from Pakistani teacher-education institutions. The data from interviews and journals identified five core findings, including video game perception development, perceived digital citizenship benefits, and contextual, cultural parameters, and implementation barriers that shaped their professional identity growth. Research data show that participants approved of video games as critical digital skill developers, yet these teachers had reservations about cultural suitability and inadequate infrastructure. The participants showed a major cognitive shift by evolving their initial mindset that video games were only recreational entertainment into an educated awareness of their educational potential for digital citizenship learning. This research enhances the existing literature on integrating technology into teacher education by presenting findings from Pakistan, which align with the developing country's standpoint. The following recommendations focus on teacher education programme reform through educational game-guided administrative experiences, cultural gaming resource development, and sustainable policies for game-based digital citizenship instruction in Pakistani educational settings.

INTRODUCTION

The digital revolution in educational settings has established video games as educational resources with prospects that move beyond entertainment functions (Egenfeldt-Nielsen, 2006; Li et al., 2024). The social practices of video games now converge with educational goals as part of video game culture (Gee, 2003). Modern educational entities emphasize digital citizenship education because it targets responsible technological conduct, internet security knowledge, critical media literacy, and proper ethical online engagement (Choi et al., 2018). The educational system in Pakistan struggles to teach new educators how to utilize digital technologies because approximately 71% of the adult population younger than 30 years accesses these technologies (Khan et al., 2018). The combination of video games and digital citizenship teaching methods establishes a deep foundation for research on how teaching students view video games as instructional tools.

Pakistani teacher education programmes fail to utilize video games effectively for digital citizenship education, even though the world recognizes their educational value. Anecdotal evidence suggests that the theoretical mastery of technology integration of Pakistani teacher candidates exceeds their actual ability to implement it in practice. Negative perceptions of video games, insufficient infrastructure, and policy weaknesses prevent teachers from utilizing games as educational tools. A sufficient understanding of teacher candidates video game experiences and perspectives is required for the integration of video games in Pakistan's teacher education (Salam et al., 2019).

Interpretative phenomenological analysis was used to investigate how Pakistani teacher candidates perceive and experience video games for digital citizenship education.

This study addresses three essential research questions.

1. How do Pakistani teacher candidates experience and make meaning of video game culture in relation to their professional preparation?
2. What perceptions do prospective teachers hold regarding video games' potential for developing digital citizenship competencies?
3. What cultural, contextual, and personal factors influence teacher candidates' willingness to incorporate video games as tools for digital citizenship education in their future practices?

This investigation adds considerable value to the existing knowledge of technology integration

in teacher education in developing contexts. This study extends culturally specific educational technology research by demonstrating how prospective teachers experience video games. The results of this research can be used to develop Pakistani teacher education curricula and assist in forming digital citizenship policies while offering direction to build game-based pedagogies that meet local needs, safeguard cultural values, and teach essential digital abilities.

LITERATURE REVIEW

VIDEO GAME CULTURE IN EDUCATIONAL CONTEXTS

The educational use of video game culture has moved beyond being peripheral to being identified as a pedagogical resource that offers unique features. Modern scholarship shows that learning environments built around games create uninhibited spaces where students resolve problems while acquiring teamwork skills (Gee, 2003). Video games help users develop essential democratic citizenship skills, such as critical thinking, ethical reasoning, and participatory competencies.

Research validates that virtual gaming environments deliver realistic learning environments that basic instructional strategies find difficult to emulate (Squire, 2011). Salen (2014) proved that simulation games offer players authentic opportunities to understand complex social systems, and Steinkuehler's (2014) work showed major cognitive development among students who engaged in strategy games. Serious games dedicated to education continue to grow in global adoption, although countries apply these games differently (Boyle et al., 2016).

Learning within video game culture involves more than gameplay activities because it includes holistic social practices and community dynamics, in addition to identity construction processes (Jenkins, 2009). Sociocultural aspects create advantageous conditions for researchers to study educational stakeholders' interpretive processes regarding gaming technology usage. Studying educator attitudes is a key factor for the successful educational utilization of video games in specified cultural frameworks (de Freitas, 2018).

DIGITAL CITIZENSHIP EDUCATION

Digital citizenship education encompasses the knowledge, skills, and attitudes necessary for ethical, safe, and effective participation in digital environments. Modern frameworks of digital safety extend beyond basic instructions to cover media analysis skills, personal digital identity

control, electronic participation, and ethical aspects of technology when interacting with each other (Ribble, 2015). Digital citizenship is characterized by technical competence and critical understanding, networked participation, identity management, and ethical responsibility (Choi, 2016; Choi et al., 2017).

Educational institutions recognize digital citizenship as an essential cross-curricular structure that cannot be treated as a single-curricular content (Jones & Mitchell, 2016). Research findings show that successful digital citizenship education requires methods that put learning into real digital practices (Greenhow et al., 2009). Academic approaches now prioritize student-led, practice-focused instruction, which helps learners understand their digital practices. Pakistani authorities recognize the significance of digital citizenship in their educational policies, but its execution across schools varies considerably (Jan, 2018). However, discrepancies between policy intentions and classroom activities exist, so teacher education institutions must focus considerably on this area. Issues regarding digital access disparities and language diversity, as well as the need for equilibrium between worldwide digital competencies and cultural traditions, act as obstacles to digital citizenship education across Pakistan.

TEACHER EDUCATION IN PAKISTAN

Over the past ten years, Pakistan's teacher education sector has experienced fundamental reforms that concentrate on developing professional standards and integrating technology into classrooms while implementing modern educational techniques (Government of Pakistan, 2017). There are ongoing issues that disturb Pakistan's teacher education sector by emphasizing obsolete curricula, insufficient practice-theory connections, and weak technology integration plans (Zafar et al., 2021). The teaching standards established by the Higher Education Commission identify digital competencies as mandatory professional attributes; however, institutions show distinct accessibility to these standards (Dilshad & Iqbal, 2010).

Research shows that educational technology components in pre-service teacher preparation programs normally concentrate on basic operational skills instead of using technology to transform teaching practices (Baloch & Taddese, 2020). Teacher education programmes include technology courses in most of their curricula, but only a few engage with digital citizenship training and essential technology integration practice (Khan et al., 2018). Majoka et al. (2013) discovered that resource inequalities persist between urban and rural

educational bodies, which negatively impact the fair development of technology-capable instructors.

Select cultural elements determine the way technology is integrated into Pakistani teacher education. Pakistani culture values shape prospective teachers' technology acceptance, and religious considerations impact their assessments of content appropriateness. Socioeconomic differences negatively affect technology access by producing wide disparities in digital resource availability between Pakistani institutions, which maintain present educational discrepancies.

INTERSECTION OF VIDEO GAMES AND DIGITAL CITIZENSHIP EDUCATION

Current research shows little exploration of the emerging educational field where video game culture intersects with digital citizenship education. Educational games create virtual worlds that students can utilize to build digital citizenship abilities by facing authentic decision points (Shaffer et al., 2005). Studies have shown that properly constructed games successfully train digital citizenship competencies, which consist of ethical decision-making, information fundamental skills, and involvement abilities (Schrier, 2016).

Research conducted by Granic et al. (2014) established that simulation games about social dilemmas lead to a better understanding of digital rights and their corresponding responsibilities among participants. Strategic role-playing games help teenagers improve their ability to critically evaluate information when used online. The evidence demonstrates that digital games provide powerful methods for teaching abstract digital citizenship concepts through experiential learning.

Teachers in developing countries continue to face implementation barriers that impede the use of digital citizenship learning methods in their teaching. The process of integration faces numerous barriers owing to insufficient infrastructure, the absence of technical know-how, and mismatched cultural environments (Boyle et al., 2016). Pakistani parents paid attention to two main difficulties when implementing digital citizenship games. Cultural relevance matters in gaming content because it highlights the clash between worldwide gaming traditions and educational settings in specific locations. The selection of appropriate games shows promise in supporting traditional methods of digital citizenship learning.

GAPS IN CURRENT RESEARCH

Educational gaming research continues to grow, but researchers need to address two main gaps by studying teaching personnel in countries outside the West. Literature analysis mainly investigates how learners experience game-based learning while failing to address teachers' perceptions (Becker, 2007). Teachers hesitate to discuss their understanding of video games for educational applications through phenomenological research. Research studies of Pakistani educational environments almost never explore how digital citizenship interacts with video game practices (Jamal & Rizvi, 2023). There is a lack of cultural adjustments for video game methodologies; however, Faraz and Shahzad (2023) show that there is no existing research on the impact of cultural and religious values on teacher gaming technology integration.

Methodology

RESEARCH DESIGN: INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS

This research used Interpretative Phenomenological Analysis (IPA) to investigate how Pakistani teacher candidates experienced using video games to teach digital citizenship. The methodological framework of IPA allows for a thorough investigation into personal life experience meaning construction through both phenomenological description techniques and interpretative analytic methods (Smith et al., 2009). The research design matches the study objectives through its ability to thoroughly analyze participants' subjective experiences treated by researcher interpretation (Larkin et al., 2006).

IPA's ideographic nature helped researchers uncover specific individual patterns before forming convergent ones (Smith & Osborn, 2015a). The chosen methodology was suitable because it incorporated the learning of historical relationships between the individual gaming histories and the development of expert identity, as well as cultural and educational background circumstances. However, IPA opportunities to grasp educational technology perceptions and provide survey participant-centered analysis while upholding the social context of such experiences.

PARTICIPANT SELECTION AND DEMOGRAPHICS

In this research, purposive homogeneous sampling was supported by Smith and Osborn (2015a); thus, the researchers recruited 20 prospective teachers from three key institutions in Punjab, Pakistan Research chose participants that met the three conditions of studying during

their final teacher training curriculum course and educational technology and being ready to investigate their video game participation. It serves the individual-focused nature of IPA by being one of the numbers that help researchers detect the widespread interpretation of respondents (Pietkiewicz & Smith, 2014).

This research included 12 female and 8 male participants to match the proportion of problems in Pakistani educational programs (Dilshad & Iqbal, 2010). The subjects in the study were individuals aged 21 to 28 (mean 23.7) with backgrounds in mathematics, language education, and social studies. The sample included all participants within the sample who had little exposure to video games but were both casual mobile game players and dedicated digital game fanatics. Due to the diverse group characteristics, yet with the same preparation and career paths, the dataset consisted of several perspectives.

DATA COLLECTION METHODS

Other data collection techniques were used to explore the participants' video gaming experiences and beliefs in the educational sphere. The primary data sources included: To verify question wording and test the cultural sensitivity of the interview procedure, the researcher applied it to four teacher candidates whose data were not included in the final analysis. The researcher interviewed the participants in Urdu or English, depending on their preference, as they were experiencing the phenomenon of being able to reduce travel (Pietkiewicz & Smith, 2014).

The participants were requested to take part in two semi-structured interviews (30 to 60 minutes). (Smith et al., 2009). With the first set of interviews, participants' game history was traced and what they thought of educational gaming, but we in the second interview we inquired about the concept of digital citizenship.

For four weeks, the participants were required to use a reflective journal to record their gameplay experiences and identify what these games correspond to digital citizenship principles (Alaszewski, 2006).

We also collected standardized demographic questionnaires that provided data about the background of some participants regarding their gaming routines, technological capabilities, and education readiness levels.

DATA ANALYSIS PROCEDURES

The analysis method used a six-step IPA framework (Smith et al., 2009). The: (1) repeated prolonged transcript immersion, (2) complete initial notetaking covering descriptions and language and concepts, (3) independently developing participant-specific themes, (4) linking these themes within each case, (5) setting aside previous interpretations, and (6) evaluating repeated patterns across all cases.

We analyzed the data using NVivo 15 as a systematic data management platform, which maintained the strict interpretative focus required for the IPA. The original language materials, including transcripts and reflective journals, were analyzed for linguistic accuracy before the researchers translated them for reporting purposes. Recurrent analytical memos enabled the researchers to document their developmental understanding and reflective self-awareness.

ETHICAL CONSIDERATIONS

This study complied with the standard procedures of human participant-based academic research. Study participants received all essential information regarding the research purpose and data procedures, along with their rights as subjects (Brinkmann & Kvale, 2015).

Data confidentiality was preserved using pseudonyms combined with secure data storage and authorization control systems (Kaiser, 2009). Participants retained their right to withdraw from the study throughout the entire research period without facing penalties.

FINDINGS

THEME 1: EVOLVING PERCEPTIONS OF VIDEO GAMES

The participants experienced a major cognitive shift regarding video games, from purely recreational entertainment to realizing their educational value. The shift in perception about video games presented itself as the main theme that researchers encountered in both interviews and reflective journals. The initial response of participants (17/20) indicated their doubt about the educational benefits of games because they viewed them as simple distractions from learning activities. “I always saw games as distractions...something students do instead of learning.” The study experience with educational games facilitated participants’ understanding of how games offer educational benefits, which they called a “perspective transformation” (P8). People who played games gained personal knowledge, and education evolved from this. Individuals with a gaming background formed complex first impressions of games that

matched Gee's (2007) research findings regarding experiential knowledge in gaming education environments. Educational game engagement allowed participants to better recognize different learning methods that could be integrated into gaming environments. Steinkuehler and Squire (2014) explain that educators experience games as learning environments rather than entertainment media through a process of recognition. Game-based interactions caused participants to question their prior beliefs about the educational uses of gaming, specifically for digital citizenship competence development.

THEME 2: PERCEIVED BENEFITS FOR DIGITAL CITIZENSHIP

Research participants recognized various ways in which video games could promote digital citizenship competencies. The development of critical thinking appeared as a major theme when 18 participants pointed out that strategic gaming requires students to assess digital information sources in a way that matches Jones and Mitchell's (2016) model of critical digital literacy. A player noted that "Civilization provided better exposure to validating online statements than any college education because players continually assess how the information relates to decision outcomes" (P12).

The study participants continually emphasized that multiplayer gaming experiences provided real situations to learn about digital rights and digital responsibility standards. The process of navigating social norms in gaming spaces gave participants (14/20) first-hand experience with proper digital conduct and responsible online behavior. The findings agree with Choi et al. (2017) definition of experiential digital citizenship education.

The research participants acknowledged how video games provide targeted learning opportunities regarding information literacy (17/20), ethical decision-making (15/20), digital identity management (13/20), and participatory skills (16/20). One participant stated, "Games establish free consequence zones where students can train precisely the digital citizenship abilities educators intend to teach" (P3).

THEME 3: CULTURAL AND CONTEXTUAL CONSIDERATIONS

Participants described the process of striking a balance between educational benefits and culturally appropriate practices within Pakistani cultural norms. The main concern regarding video game content was inappropriate when players doubted the integration of cultural elements that did not match their perceptions. The participant stated, "We require digital

citizenship teaching games that maintain our cultural values" (P9). The method of cultural navigation aligns with Cortesi et al.'s (2018) finding of the crucial need for contextualizing culture to enable impactful technology integration in multifaceted environments.

Religious values strongly affected the participants' game reviews, with 16 out of 20 expressing worries about content material that appeared incompatible with Islamic principles. In the evaluation of game mechanics, participants agreed on their benefits and requested appropriate game content (P14).

The group indicated the development possibilities for games that specifically target Middle Eastern concerns about digital citizenship. The participants acknowledged (12/20) that locally made audio games could better tackle local problems within cultural boundaries, as documented by Livingstone and Sefton-Green (2016a) in their research on cultural responsiveness in digital citizenship education. This theme demonstrates how educational settings with diverse cultures must establish complex negotiation procedures to facilitate technological integration.

THEME 4: IMPLEMENTATION CHALLENGES

Multiple barriers were cited by the participants that would obstruct the integration of video games into digital citizenship teaching methods. All interviewees mentioned that typical Pakistani schools faced problems regarding inadequate technological infrastructure and resources. The participant observed that "most educational facilities equipped with one old computer laboratory makes it difficult to use advanced games" (P7). The research findings support Gudmundsdottir and and Hatlevik (2018) observations about the differences in infrastructure in developing educational systems.

Non-technical expertise stood as a major obstacle among teaching personnel, because 16 of the 20 participants doubted their ability to implement game-based learning effectively. Instefjord and Munthe (2017b) revealed that low technical self-confidence is one of the main obstacles preventing pre-service teachers from using technology in their teaching practice.

Most participants (18/20) voiced administrative support worries, as they expected leaders in their schools to resist unfamiliar game-based teaching practices. Many participants expected that convincing principals about the educational validity of games would prove more challenging than learning to implement these games effectively (P19). The research confirms

the institutional barriers anticipated by participants, which corresponds to the findings identified by Tondeur et al. (2017) regarding technology integration factors at the administrative level. The participants noted that tight school schedules, which limit the available time for educational experimentation, will require sustained changes in the education system.

THEME 5: PROFESSIONAL IDENTITY FORMATION

The participants experienced substantial self-examination of their professional identity through their practice of games for education. The analysis revealed that 16 out of 20 participants changed their teacher identity perception to develop expertise in technology facilitation and digital citizenship instruction. Research participant P11 explained their changing view of themselves from traditional knowledge transmitters to digital mentors who guide students through virtual spaces (Donnelly et al., 2011), described as "identity expansion.

Developing professional identities was a strong challenge that the participants had to overcome when trying to combine traditional educational methods with innovative instructional approaches. When games are used by educators, they are responsible for their own innovation and responsiveness to the principle of educational practice (P16). C Beavis et al. (2017) describes the tension inherent to 'teacher integration of new technological tools' as the negotiation points.

In this study, the sense of immersion into educational games created more change in teachers' professional self-conception than in studying educators. The participants' professional teaching vision changes into a combination of traditional and innovative methods (P5). The data confirm the findings of Kafai and Fields (2013), showing the effect of experiential learning on developing teacher identity.

DISCUSSION

INTERPRETATION OF KEY FINDINGS

Research findings revealed that there exist intricate relations between the changing attitudes of participants on video games and their uptake of digital citizenship lessons along with controlling environmental conditions such that these lessons are implemented. For technology to be integrated successfully, it must change the way one thinks about games, which is a necessary condition for the discovery that games offer educational utility. Perspective

modification matches Mezirow's (2000) definition of 'disorienting dilemma',' that is dilemmas that cause a frame referential change in educators when encountering a new educational method..

Succeeding in game-based activities where players successfully identified digital citizenship competencies composed of their game systems and citizenship rules. However, the participants noted the connection between critical thinking and ethical decision-making, equated to information literacy skills, and the importance of the critical component of digital citizenship through game-based problem solving. A necessary foundation for any meaningful use of educational technology involves transferring abilities or capabilities from gaming to educational purposes. (Hammond et al., 2011).

Educational theorists disagree with problem-solving practitioners regarding how well schools match theory to practice during educational reforms. The participants demonstrated knowledge of technological systems in teaching situations by understanding both the theoretical benefits of technology in education and the limitations of real-world factors that are present in system usage.

Professional identity creation experienced major shifts because the participants had to navigate their future teaching roles as digital citizenship instructors using games. Research shows that hands-on technology usage leads to additional identity formation processes beyond basic skills learning while supporting Ertmer and Ottenbreit-Leftwich's (2010) observations that technology integration requires major changes to professional practice.

CONNECTIONS TO EXISTING LITERATURE

This study validates previously established research on video games in teaching environments and adds additional insights into this field. According to Gee and Hayes (2011), educators who experience video games firsthand go through a literacy reframing process(2011), which redirects their attention from content toward fundamental learning components. The researchers documented an educator dilemma regarding gaming technology benefits that matches Squire and Steinkuehler's (2014) study findings.

The digital citizenship competencies chosen by the participants matched those outlined in Choi et al.'s (2016; 2017) multidimensional framework, particularly through the critical understanding and ethical responsibility frameworks. This research builds upon Choi et al.'s

work (2016; 2017) by explaining the gaming mechanisms that promote digital citizenship competency development while following Ribble and Park's (2019) recommendation for experiential learning approaches.

The findings of this research enhance and challenge various points found in previous scholarship. Research participants expressed reservations about the cultural appropriateness of the analytical framework of (Livingstone and Sefton-Green (2016a) regarding digital citizenship education mediation across cultures. Participants demonstrated a more detailed understanding of game systems and content materials, which opens alternate routes for developing culturally appropriate video game instruction instead of adopting a complete gaming methodology ban (Sabol, 2025).

The evaluated implementation obstacles correspond extensively to Gudmundsdottir and Hatlevik's (2018) analysis of infrastructure challenges in developing contexts. The participants' administrative support comments go beyond technical needs to show that institutional and cultural changes create real possibilities for meaningful integration, according to Tondeur et al.'s (2017) views on the social dimensions of educational technology.

THEORETICAL IMPLICATIONS

The new insights from this study improve the understanding of digital citizenship education tools through video games in multiple important theoretical aspects. This study extends the Technological Pedagogical Content Knowledge (TPACK) framework through specific illustrations that explain how cultural and contextual elements affect technological pedagogical reasoning processes. The results demonstrate what researchers might call "culturally responsive TPACK" since it involves understanding how technologies work in teaching situations along with recognizing cultural influences on technology deployment (Koehler et al., 2013).

Through this research, situated learning theory received confirmation of how video games provide "legitimate peripheral participation" opportunities for developing digital citizenship practices (Lave & Wenger, 1991). The fact that participants identified games as providing authentic settings to practice digital citizenship skills indicates that games intentionally act as communities of practice for citizenship development.

The research project aims to develop transformative learning theory in educational settings

that use technology. The documented changes in participants' perceptions show the transformation described by Cranton (2023) as an "epistemic transformation" from authentic experience with new educational tools. Educational technologies require direct student-environment interaction to transform teachers' classroom perspectives.

This study adds to the professional identity formation theory by confirming that the process of engaging with technology forms a mutual bond with identity growth in professionals. Educators integrate new technological roles into their professional self-concept, as Alsup (2006) describes through his borderland discourse framework.

Implications for Practice

TEACHER EDUCATION PROGRAM DEVELOPMENT

This research produces vital guidelines that educators need to follow when establishing teacher education programmes. Educational games should be an organized component of digital citizenship education teaching methods. Implementation willingness arises from firsthand experience (Darling-Hammond, 2010). Teachers-in-training must receive structured education that includes analyzing diverse educational games alongside their strengths while recognizing their potential weaknesses so that they can be used in the classroom.

Educational programs for teachers should include direct instruction on culture-based modifications of gaming technologies within their curriculum. Programs need to build training platforms that assess games for cultural compatibility, together with adaptive implementation solutions (Catherine Beavis et al., 2017). The cultural adaptation approach will help resolve participants' issues regarding matching instructional materials to different contexts.

The educational programme should unite technical skills learning with educational reasoning throughout the game-development process. The development of educational programs must follow Foulger et al.'s (2017) guidance by creating content that combines the training of technical abilities with the development of pedagogical decisions for game-based learning implementations. Such integration solves participants' issues regarding technical competence while they gain experience with implementation.

POLICY RECOMMENDATIONS

New educational policies must include implementation guidelines for using game-based learning to teach digital citizenship. National educational technology frameworks must

establish the official acceptance of video games as educational tools by setting proper rules for their use. The adoption of innovative institutional practices depends heavily on policy legitimation (Williamson, 2017).

The allocation of educational resources must have explicit specifications for the technological requirements needed to implement game-based learning. Policies should implement basic minimum technology specifications with specific steps that accommodate different resource levels, according to Livingstone's (2012) guidelines.

Curriculum policy must integrate digital citizenship standards that students can achieve using gaming techniques. According to Jones and Mitchell (2016), curricular legitimization of digital citizenship objectives serves as a necessary framework for systematic implementation. Educational policies must create assessment systems that check both the appropriateness and effectiveness of educational games. Schrier's (2016) suggestions guide policy development, which includes specific assessment criteria to measure both content learning and cultural acceptability to resolve participant concerns regarding the appropriateness and support implementation practices.

PROFESSIONAL DEVELOPMENT OPPORTUNITIES

Educational institutions should direct their professional development programs to help teachers implement game-based digital citizenship education for their students. Educational game experience serves as the core subject for short-term workshops to help participants transform their perspectives according to the study results (Kafai & Fields, 2013). Long-term programmes need to create communities of practice for teachers to work together on developing proper educational game implementation solutions for their learning environments (Instefjord & Munthe, 2017a).

A network structure for professional development that focuses on culturally responsive game implementations would accommodate teacher concerns while developing their capacity to use the approach. These platforms would enable educators to share educational resources and jointly solve problems that arise during particular implementation processes. Experienced mentorship programs paired with educational novices would expand sustainable implementation and help participants overcome their confidence concerns.

LIMITATIONS AND FUTURE RESEARCH

METHODOLOGICAL LIMITATIONS

This study had at least four methodological limitations that researchers should carefully consider when evaluating the results. First, the sample size (n=20), while appropriate for IPA methodology, limits the generalizability of the findings to broader populations of teacher candidates. Smith and Osborn (2015b) indicate that the fundamental goal of IPA research is to create depth rather than breadth, which may compromise representativeness in order to attain deeper interpretive insights. Subject selection bias due to participant choice produced a sample group that tended to favor educational technology, as they had already shown interest in it before the study (Hamari & Koivisto, 2015).

The brief interaction with gaming experiences properly explored perceptions, yet failed to detect how extended application would affect teacher candidates' beliefs over time. Steinkuehler and Squire (2014) explain how initial technology engagement might create unusual effects that fade when users adopt new behaviors over time. The dependence on self-reported data in this study introduces the possibility of social desirability bias, as participants may have felt compelled to showcase positive attitudes toward educational innovations (Maxwell, 2013). Academic staff who have not yet begun teaching cannot fully demonstrate how real classroom constraints affect their decision-making regarding implementation of teaching.

RECOMMENDATIONS FOR FURTHER RESEARCH

Researchers should follow multiple strategies to overcome the identified limitations of this study. Studying teacher candidates from their preparation to their early professional teaching stage would reveal the actual connection between instructional beliefs and classroom practices. Student outcomes, together with classroom observations, represent a better approach to examining implementation success beyond traditional teacher-perception analysis.

Studies involving multiple stakeholder groups, including administrators, their students, and parents, would deliver expanded viewpoints about implementation systems (Jenkins et al., 2009). Studies focusing on cultural differences would provide expanded insights into how social environments affect the process of educational gaming integration while expanding current knowledge (Livingstone & Sefton-Green, 2016b).

Research into particular game design elements matching competencies within digital citizenship would expand theoretical explanations of learning operations (Gee, 2003). Research aimed at developing culturally appropriate educational games for digital citizenship would bridge theoretical understanding and practical usage.

Conclusion

SUMMARY OF KEY FINDINGS

Interpretative phenomenological analysis was employed to study the perspectives of Pakistani teacher candidates on using video games in digital citizenship education. The research revealed five main aspects: changing attitudes toward video games while identifying their value for digital citizenship skills, how context affects educational decisions, obstacles to game implementation in teaching practice, and their influence on shaping the professional identities of teachers. Teachers experienced a learning transformation when they transitioned from perceiving video games simply for entertainment to recognizing their teaching value, as they specified how various digital citizenship competencies develop through gaming experiences. Cultural sensibilities actively shaped views on implementation because teachers attempted to find alignment between modern curricular approaches and traditional learning practices. The barriers to implementation mainly stemmed from limited infrastructure capacity, staff technical abilities, and administrative backing, which matched existing obstacles regarding educational technology integration.

FINAL REFLECTIONS AND CONCLUDING THOUGHTS

This study explains the process through which prospective teachers make decisions about innovative educational technologies within particular cultural contexts. Research results indicate that video games need proper attention to technical systems and teaching methods; however, professionals need to consider cultural values and their own professional identity growth to be successful in digital citizenship education. Digital citizenship is important for student achievement. Thus, teacher education needs to establish systematic ways for students to experience educational gaming with cultural sensitivity. Teacher education research on candidate experiences studying modern teaching methods enables education leaders and policymakers to create new teacher preparation programmes that effectively use video games for digital competency learning.

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